

Question.

Give a resume of the mineral resources of Pakistan and comment as to why have we not been able to capitalize upon this resource bank?

Answer:

Introduction

“According to current estimates, Pakistan's mineral deposits are worth \$6 trillion.”

Pakistan is endowed with an abundance of natural resources which are mainly divided in four categories of minerals and energy assets, aquatic ecosystems, natural diversity and ground funds. Pakistan is among one of those countries whose profile of natural resources is quite high because alongwith other categories of natural resources, the resume of minerals holds the names that are an important factor of any nation's economy. The resume of Pakistan's mineral resources comprise of coal, Oil, gas, gold, Copper, marble, limestone, rock salt, Chromite, Iron ore, Bauxite etc. In addition to these, Rubies, Topaz, emeralds are just a few of the valueable and semi-precious minerals that are mined in Pakistan. Despite the presence of these minerals, there

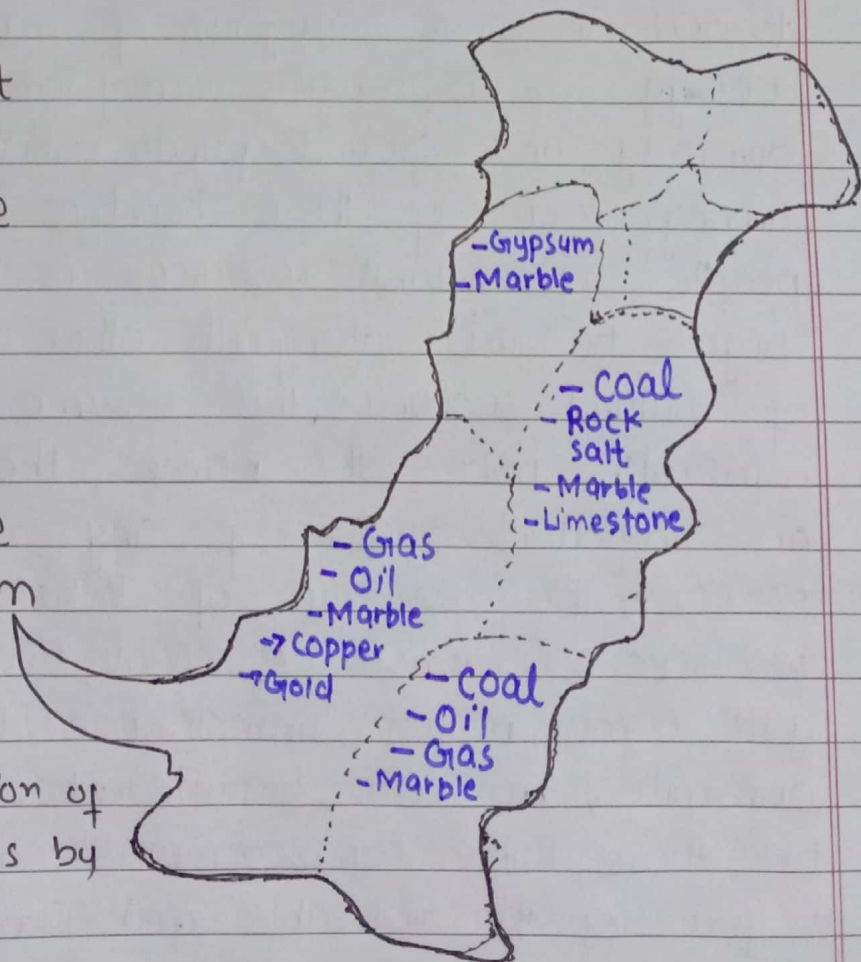
are certain reasons leading to not fully capitalization of these resources. Lack of infrastructure, political instability, rising militancy and absence of well-defined mining rights are just a few reasons that results in inability of capitalization of these resources.

A resume of mineral resources of Pakistan:

Following are the minerals which are found in Pakistan;

- Coal
- Oil
- Gas
- Rock salt
- Marble
- Iron Ore
- Gypsum
- Copper
- Gold
- Gems
- Chromite
- Petroleum

→ Illustration of minerals by map.



Coal

Coal is one of primary natural resources of Pakistan. Not only it is regarded as a significant component of Pakistan's generating mix, it is also a contemporary player in the country's energy sector. Mineral deposits of low to medium quality in Punjab were previously found in Pakistan. Reports of this resource in Baluchistan and area around Islamabad indicate it advantageous as low sulfur coal. Alongwith Ignite Coal, bituminous and sub-bituminous types of coal are also accessible in Pakistan.

→ Pakistan has more than 186 billion tonnes of coal reserves and the total consumption of coal by different sectors of the economy stood at 15.418 million metric tonnes during Fiscal year 2022-2023 (The Nations, Power sector remains biggest consumer of coal in Pakistan, 2023).

Oil and Gas

Pakistan has high rate of natural gas production. Sui gas is said to be the most incredible field because it produces a significant amount of Pakistan's gas. There are also rumors of natural gas and oil riches beneath Baluchistan's deserted mountains and Sindh dunes.

Date: _____

Day: _____

Pakistan had proven oil resources of 1,245 million barrels and likewise, the estimated total recoverable resources of natural gas were 63.24 trillion cubic feet.

Rock Salt

Rock Salt (Halite) also often known as Himalayan Salt and is mined in Khewra Salt mines. It is used as a culinary additive to substitute refined table salt. It is also employed for food preparation, and display, ornamental lamps and spa services. It has a pinkish color from trace minerals.

Pakistan is blessed with huge rock salt deposits and estimated reserves are over 65 million metric Ton, according to Pakistan Mineral Development Corporation.

Marble and Limestone

Pakistan is blessed with large quantities of marble particularly unique and well-known marble kinds including Ziarat white, black and white marble. Khyber Pakhtunkhwa, Punjab, Balochistan and Sindh contain over 40 varieties of naturally (occurring)* colored marbles.

Punjab holds significant limestone resources particularly in:

→ Salt Range hills

→ Margallah hills

2023.11.10 22

→ Koh - Suleman → District Attock

Sari Nala Limestone reserves are in Zirand-
pir area in Dera Ghazi Khan district.

Pakistan has an estimated 300 billion tonnes of marble reserves scattered in KPK and Punjab while Baluchistan had approximately 2.5 billion tonnes of unique stone and exploration are still in progress.

Iron Ore

Several localities of Pakistan where it can be discovered includes;

→ Nakundi → Chiniot → the largest Kala-
bagh → Hanipur → other northern districts.
Pakistan is known to have an estimated 1.427 billion tonnes of reserves of varying grades.

Gypsum

Dera Ghazi Khan District's tribal areas are home to most gypsum deposits. Most producers understood that gypsum could only be used on unhealthy or degraded soils. Farmers in Pakistan use it primarily to recover sodic and sodic-saline soils. With the development of technology and information, gypsum is now also referred to as fertilizer by scientists. It supports industry, plaster, plaster boards etc.

Around 92 percent of Pakistan's

Date: _____

Day: _____

gypsum is found in KPK and are estimated to be 5.5 billion tonnes.

Copper and gold

The Reko-Diq copper-gold deposits are an important found in Pakistan and are regarded as one of the world's most significant untapped copper-gold deposits.

Reko-Diq is a significant copper-gold deposit with 12 million tons of copper and 20.9 million ounces of precious metal gold are estimated and probable deposits in the Chaghi's district of Baluchistan.

Gems

Pakistan is rich in many different types of minerals some of which are well known in mineralogy including Ruby, emerald, Topaz, Peridot, aquamarine and rare earth minerals ^{which} are numerous types and varieties of gems.

Chromite

Chromite is widely used in industry and is a significant raw material in producing corrosion resistant, paints and other chemicals. Chromite was first discovered and documented in 1960s in Pakistan.

Most of Pakistan's Chromium deposits

Date: _____

Day: _____

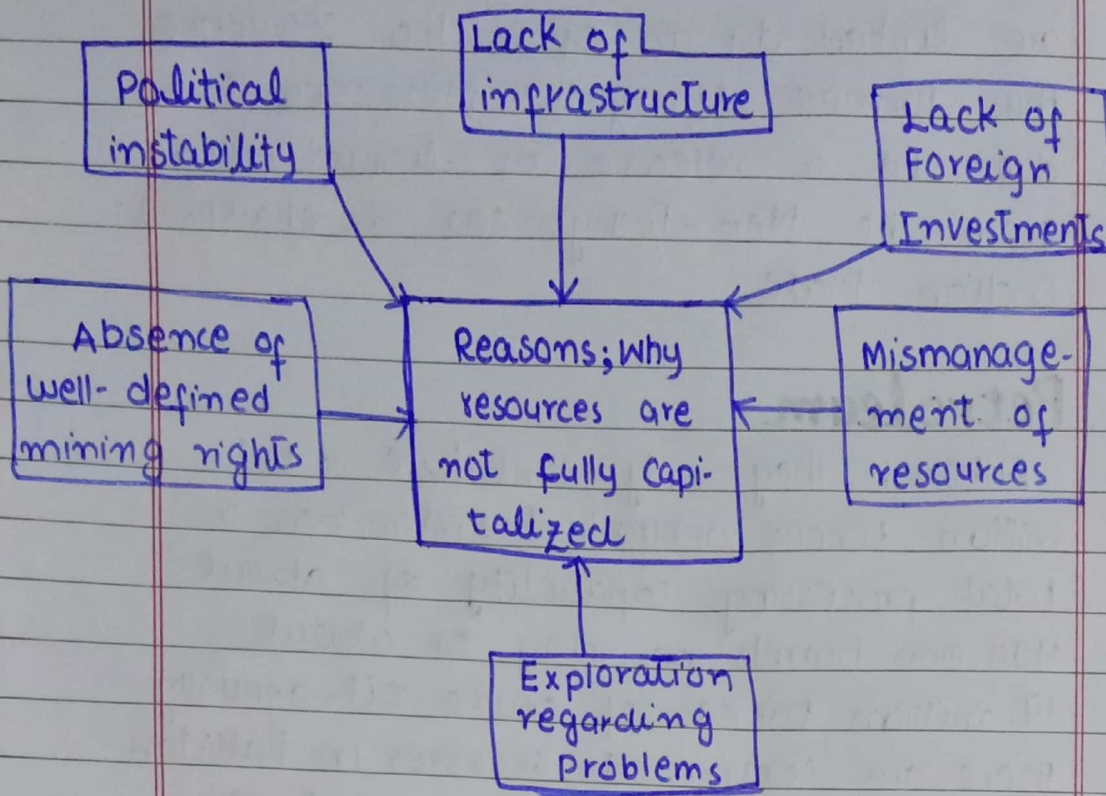
are linked to an ophiolitic sequence thus formed during the Mesozoic era due to a release of liquid metal from the Neo-Tethys sea and shattered Indian Plate.

Petroleum

Although, they only contribute 11.6 million tonnes annually, Pakistan has a total processing capability of about 400,000 barrels per day or about 19 million tonnes of crude oil annually. There are confirmed reserves in Pakistan that are 1.7 times the country's yearly consumption.

Reasons of Inability to Capitalize the resource bank of minerals

“Despite immense mineral resources, the mineral sector's contribution to national economy is insignificant at 2.51 percent. This exposes Pakistan's inability to manage mineral wealth or attract Foreign mineral investment.”
(Zafar Nawaz Jaspal, Saudi Arabia's investment in Pakistan's mineral resources, 2023)



Lack of infrastructure

Pakistan lacks appropriate infrastructure to capitalize its mineral resources. Because of absence of mining technologies (modern and advanced), Pakistan stand very behind among the countries who get a good share of economy from this wealth.

Mismanagement of Resources

In addition with lack of infrastructure, mismanagement is also another big problem, which leads to decline of these resources. e.g. Total recoverable resources of crude oil and natural gas are depleting at an alarming levels. The nation has consumed about 81 percent of total

oil reserves and 69 percent of cumulative gas reserves.

Political Instability & Lack of Foreign Investments

Prevailing political instability has many consequences because it leads to discontinuity in policies regarding the resources which ultimately causes concerns for foreign investments by the foreign investors. It drastically impacts confidence and develop trust issues regarding continuation of their projects.

Absence of Well-defined mining rights

Absence of mining rights also have impacts on the capitalization of mineral resources. This leads to uninterest of most companies and it becomes difficult to extract minerals which ultimately also affect country's economy.

Exploration regarding issues

Exploration also is a very crucial phenomenon for right use of the minerals. If not invested, ^{not} properly undertaken and lack authenticity in calculation and findings lead to severe implications.

Critical analysis

Natural resources are included in precious assets of a nation. These contribute to nation's economy significantly and are needed to be properly administrated. Pakistan is also rich in most valueable minerals which need to be capitalized so that it can be employed in financial manufacturing as well as to improve development and expand the nation's economy. They also need a very careful use because they include non-renewable resources which once diminished can never be recovered.

Conclusion

Pakistan's mineral resume is filled with many minerals which are best in the world. These include coal, Iron ore, rock salt, gypsum, natural gas, Oil, Chromite, Copper, gold, marble and precious gems. These minerals can contribute a lion's share in economy if fully capitalized. However, there are certain factors that cause inability to capitalize these resources. These factors comprise of lack of infrastructure, political instability, lack of well-defined mining rights and lack of Foreign investments.